

at least one temperature measurement element formed by the second structure  
in the metal layer; and

a moisture barrier arranged above the metal layer and formed at least in part by  
a nitride layer.

C2 3. (Once Amended) The mass flow sensor according to claim 1, wherein:  
the nitride layer is a silicon nitride layer.

8. (Once Amended) The mass flow sensor according to claim 1, further comprising:  
a further nitride layer arranged between the frame and the metal layer.

C3 9. (Once Amended) The mass flow sensor according to claim 8, further comprising:  
a silicon oxide layer formed by a thermal oxidation and arranged between the  
further nitride layer.

10. (Once Amended) The mass flow sensor according to claim 9, wherein:  
the further nitride layer includes a silicon nitride layer.

11. (Once Amended) The mass flow sensor according to claim 9, further comprising:  
an oxide layer arranged in a recess area beneath the further nitride layer.

C4 12. (Twice Amended) The mass flow sensor according to claim 9, further comprising:  
an oxide layer arranged in the membrane and below the metal layer; and  
a recess arranged beneath the further nitride layer;  
wherein the recess does not contain the oxide layer.

Please also add new claims 19-23.

C5 19. (New) A mass flow sensor, comprising:

a frame formed at least in part by silicon;

a membrane held by the frame;

a metal layer arranged above the frame;

a heating element formed by a first structure in the metal layer; and